SEQUENCE LISTING

<110> Zhu, Zhenping

<120> Bispecific Immunoglobulin-Like Antigen Binding Proteins and Method of Production

<130> 11245/47102

<140> filed concurrently herewith
<141> 2001-05-24
<150> US 60/206,749
<151> 2000-05-24

<160> 34
<170> WordPerfect 8.0 for Windows

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Gly Phe Asn Ile Lys Asp Phe Tyr Met His
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Trp Ile Asp Pro Glu Asn Gly Asp Ser Gly Tyr Ala Pro Lys Phe Gln
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Gly
17

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Ser Ala Ser Ser Ser Val Ser Tyr Met His
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Ser Thr Ser Asn Leu Ala Ser
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Gln Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Gly Ser Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Thr Thr Ser Gly Phe Asn Ile Lys Asp Phe
20 25 30

Tyr Met His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Asp Pro Glu Asn Gly Asp Ser Gly Tyr Ala Pro Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Ser Ser Ser Asn Thr Ala Tyr
65 70 75 80

Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Asn Ala Tyr Tyr Gly Asp Tyr Glu Gly Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Val Thr Val Ser Ser
115

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Asp Ile Glu Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Phe Gln Gln Lys Pro Gly Thr Ser Pro Lys Leu Trp Ile Tyr
35 40 45

Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Arg Ser Ser Tyr Pro Phe Thr
85 90 95

Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg Ala
100 105

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<400> 10

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27

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tcctgcacaa cttctggctt caacattaaa gacttctata tgcactgggt gaagcagagg 120
cctgaacagg gcctggagtg gattggatgg attgatcctg agaatggtga ttctggttat 180
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ataacctgca gtgccagctc aagtgtaagt tacatgcact ggttccagca gaagccaggc 120
acttctccca aactctggat ttatagcaca tccaacctgg cttctggagt ccctgctcgc 180
ttcagtggca gtggatctgg gacctcttac tctctcacaa tcagccgaat ggaggctgaa 240
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accaagctgg aaataaaacg ggcg 324

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Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

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<212> DNA
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<400> 18

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45

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Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 20
<211> 15
<212> DNA
<213> Mouse

<400> 20

ggtggaggcg gttca 15

<210> 21
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Trp Ile Asp Pro Glu Asn Gly Asp Ser Asp Tyr Ala Pro Lys Phe Gln
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Gly
17

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Gln Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Gly Ser Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Thr Thr Ser Gly Phe Asn Ile Lys Asp Phe
20 25 30

Tyr Met His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Asp Pro Glu Asn Gly Asp Ser Asp Tyr Ala Pro Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Ser Ser Ser Asn Thr Ala Tyr
65 70 75 80

Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Asn Ala Tyr Tyr Gly Asp Tyr Glu Gly Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Val Thr Val Ser Ser
115

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Asp Ile Glu Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1   5   10   15

Glu Lys Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30

His Trp Phe Gln Gln Lys Pro Gly Thr Ser Pro Lys Leu Trp Ile Tyr
        35   40   45

Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
    50   55   60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg Met Glu Ala Glu
65   70   75   80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Arg Ser Ser Tyr Pro Phe Thr
                85   90   95

Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 24
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<212> DNA
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<400> 24

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<210> 25
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tcctgcacaa cttctggctt caacattaaa gacttctata tgcactgggt gaagcagagg 120
cctgaacagg gcctggagtg gattggatgg attgatcctg agaatggtga ttctgattat 180
gccccgaagt tccagggcaa ggccaccatg actgcagact catcctccaa cacagcctac 240
ctgcagctca gcagcctgac atctgaggac actgccgtct attactgtaa tgcatactat 300
ggtgactacg aaggctactg gggccaaggg accacggtca ccgtctcctc a 351

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ataacctgca gtgccagctc aagtgtaagt tacatgcact ggttccagca gaagccaggc 120
acttctccca aactctggat ttatagcaca tccaacctgg cttctggagt ccctgctcgc 180
ttcagtggca gtggatctgg gacctcttac tctctcacaa tcagccgaat ggaggctgaa 240
gatgctgcca cttattactg ccagcaaagg agtagttacc cattcacgtt cggctcgggg 300

accaagctgg aaataaaa 318

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Gln Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Gly Ser Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Thr Thr Ser Gly Phe Asn Ile Lys Asp Phe
20 25 30

Tyr Met His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Asp Pro Glu Asn Gly Asp Ser Gly Tyr Ala Pro Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Ser Ser Ser Asn Thr Ala Tyr
65 70 75 80

Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Asn Ala Tyr Tyr Gly Asp Tyr Glu Gly Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Asp Ile Glu Leu Thr Gln Ser Pro Ala Ile Met Ser
130 135 140

Ala Ser Pro Gly Glu Lys Val Thr Ile Thr Cys Ser Ala Ser Ser Ser
145 150 155 160

Val Ser Tyr Met His Trp Phe Gln Gln Lys Pro Gly Thr Ser Pro Lys
165 170 175

Leu Trp Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg
180 185 190

Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg
195 200 205

Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Arg Ser Ser
210 215 220

Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg Ala
225 230 235 240

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<400> 28

Gln Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Gly Ser Gly Ala
1 5 10 15

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Ser Val Lys Leu Ser Cys Thr Thr Ser Gly Phe Asn Ile Lys Asp Phe
            20                  25                  30

Tyr Met His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
        35                  40                  45

Gly Trp Ile Asp Pro Glu Asn Gly Asp Ser Asp Tyr Ala Pro Lys Phe
    50                  55                  60

Gln Gly Lys Ala Thr Met Thr Ala Asp Ser Ser Ser Asn Thr Ala Tyr
65                  70                  75                  80

Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Asn Ala Tyr Tyr Gly Asp Tyr Glu Gly Tyr Trp Gly Gln Gly Thr Thr
            100                 105                 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Asp Ile Glu Leu Thr Gln Ser Pro Ala Ile Met Ser
    130                 135                 140

Ala Ser Pro Gly Glu Lys Val Thr Ile Thr Cys Ser Ala Ser Ser Ser
145                 150                 155                 160

Val Ser Tyr Met His Trp Phe Gln Gln Lys Pro Gly Thr Ser Pro Lys
                165                 170                 175

Leu Trp Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg
            180                 185                 190

Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg
        195                 200                 205

Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Arg Ser Ser
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Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
225                 230                 235


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<223> Synthetic primer

<400> 31

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<210> 32
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<212> DNA
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<223> Signal

<400> 32

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<210> 33
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<212> PRT
<213> Artificial Sequence

<220>

<223> leader peptide

<400> 33

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
5 10 15
Val His Ser
19

<210> 34
<211> 32
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 34

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